Oct-12-04

Application No. 10/015,572 Reply to Office Action of May 10, 2004

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- (Amended) A source selection system providing flow of data control in a 1. communication switch for selecting a primary datasource for a routing data flow selected from a first and second amongst data flow paths each carrying redundant data in parallel, said system comprising:
 - a first and a second communication modules, each communication module providing

a route for one path for said data flow through one of said data paths an internal communication path through a first datasource communicating with a second datasource;

a communication link between said first datasource to said second datasource of the other communication module to provide an alternate route for said data flow;

a validation module associated with said second datasource adapted to monitor-said first datasources of said first and second communication modules for transmission errors in output originating from said first datasources and adapted to provide information relating to said transmission errors:

a source selector associated with said validation module and said first datasource of said each communication module datasources, said source selector adapted to select an output datasource from first datasources; and an assessment module associated with said validation module adapted to identify said primary output datasource from said first datasources utilizing said information provided by said validation modules and

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adapted to cause said source selector to select said output datasource associated with said primary datasource.

- 2. (Previously presented) The source selection system as claimed in claim 1, wherein said validation module comprises a plurality of validation sub-modules, each one of said plurality of validation sub-modules associated with one of said first datasources.
- 3. (Previously presented) The source selection system as claimed in claim 2, wherein said validation module performs an integrity check on data transmitted by said first datasources to provide information relating to transmission errors for said first datasources.
- 4. (Amended) The source selection system as claimed in claim 3, wherein said assessment module evaluates severity of said transmission errors provided in said information and causes said source selector to select said output datasource associated with said primary datasource based on said severity of said transmission errors for said first datasources.
- 5. (Previously presented) The source selection system as claimed in claim 4, wherein said integrity check on said data comprises a parity check and a cyclic redundancy check.
- 6. (Previously presented) The source selection system as claimed in claim 5, wherein said integrity check is performed on a payload portion of said data.
- 7. (Previously presented) The source selection system as claimed in claim 6, wherein said integrity check is performed on a header portion of said data.

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- 8. (Previously presented) The source selection system as claimed in claim 7, wherein said communication switch further comprises a plurality of output cards and an input card, said first and second data flow paths originating from one of said plurality of output cards and said source selector operating at input to said input card.
- 9. (Previously presented) The source selection system as claimed in claim 8, wherein at least one of said output cards comprises a component and said integrity check is performed upon said data being received by said component in said at least one of said output cards of said communication switch.
- 10. (Previously presented) The source selection system as claimed in claim 9, wherein said source selector is a multiplexer.
- 11. (Amended) A method of selecting a primary datasource routing data flow in a communication switch amongst data flow paths each carrying redundant data in parallel, said method comprising the steps of:

having first and said second communication paths in said communication switch, each communication path providing one of said data flow paths comprising an internal communication path through a first datasource communicating with a second datasource;

having a communication link between said first datasource of one communication path to said second datasource of the other communication path to provide an alternate data flow path for said data flow between said data flow paths; monitoring said first datasources of said first and second communication paths for transmission errors in output originating from said first datasources and adapted to provide information relating to said transmission errors; and

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identifying said primary datasource from said first datasources selectively routing said data flow through said one of said data flow paths and said alternative data flow path utilizing said information provided by said monitoring said first datasources.

- 13. (Amended) The method of selecting a primary datasource routing data flow as claimed in claim11, further comprising the step of gathering information relating to health of said first datasources.
- 14. (Amended) The method of selecting a primary datasource routing data flow as claimed in claim 13, wherein said monitoring said first datasources is executed by performing an integrity check on data originating from said first datasources.
- 15. (Amended) The method of selecting a primary datasource routing data flow as claimed in claim 14, wherein said gathering information relating to said health of said first datasources records severity of said transmission errors monitored and said primary datasource is identified based on said severity of said errors for said first datasources.
- 16. (Amended) The method of selecting a primary datasource routing data flow as claimed in claim 15, wherein said integrity check on said data comprises parity checks and cyclic redundancy checks.
- 17. (Amended) The method of selecting a primary datasource routing data flow as claimed in claim 16, wherein said integrity check is performed on a payload portion of said data.

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- 18. (Amended) The method of selecting a primary datasource routing data flow as claimed in claim 17, wherein said integrity check is performed on a header portion of said data.
- 19. (New) The method of routing data flow as claimed in claim 18 wherein: for each of said first and second communication paths:

its data flow path extends from its second datasource through a third datasource;

a second communication link connects its second datasource to the third datasource of the other communication module to provide second alternate route for said data flow;

its second datasource is monitored for transmission errors, and said data flow is routable from one of said second datasources in one communication path to the third datasource of the other communication path after determining which one of said from said second datasources has fewer transmission errors.

20. (New) The system of routing data flow as claimed in claim 11 wherein:

for each of said first and second communication modules

said route extends from said second datasource through a third datasource; a second communication link connects said second datasource to said second third of the other communication module to provide a second alternate route for said data flow;

a second validation module associated with said third datasource adapted to monitor said second datasources for transmission errors and adapted to provide information relating to said transmission errors;

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a second source selector associated with said second validation module and said second datasources, said source selector adapted to select an output datasource from second datasources; and

a second assessment module associated with said second validation module adapted to selectively route said data flow through said one of said data flow paths and said second alternative data flow path utilizing said information provided by said second validation module and adapted to selectively cause said second source selector to route said data flow.